AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior version and listings of claims in the application:

Listing of Claims:

1.   (Currently amended) A method of ~~recording an amount of online time of a user~~ time charging to DHCP online users in a broadband access server, comprising the steps of:

a)   setting an inner time interval for monitoring a data flow of the user in the broadband access server, an outer time interval for detecting an IDLE state outside the broadband access server and a flow threshold for counting the data flow of the user users in the broadband access server, and the inner time interval being shorter than the outer time interval;

b)   providing a fee calculation server in communication with the broadband access server for recording the amount of online time of the user and starting recording the online time of the user time charging to the users by the fee calculation service when receiving an instruction of the access server to the users sooner broadband access server after the user accesses users access the broadband access server and is are authenticated successfully[[,]];

c)   establishing in the broadband access server a circular link list having a number of elements to each the user for recording the data flow of the user in the access server, wherein the element number of the circular link list is the number of times of the outer time interval to the inner time interval;

d)   ~~defining a number of elements in the circular link list as a multiple of the outer time to the inner time in the access server; and~~

~~e)~~   repeatedly detecting the data flow of the user in the broadband access server at each according to the inner time interval in the access server, and recording the detected data flow as a content of a head pointer of the circular link list in turn, until a difference between data flow the newly detected data flow and the content rerecorded recorded in the head pointer is not more than the flow threshold;

e)   deciding the user in the IDLE state in the broadband access server when the difference between the newly detected data flow and the content recorded in the head pointer is less than the flow threshold; and

f)   stopping recording the online time of the user by the fee calculation service

according to an instruction of the broadband access server.

2.   (Currently amended) The method of claim 1, characterized in that, when the circular link list is not fully filled, ~~full, step e)~~ step d) further comprises the ~~step~~ steps of:
        ~~e1)   examining data flow newly detected and the content of the head pointer, when a difference between data flow newly detected and the content of the head pointer exceeds the flow threshold,~~ saving the ~~data flow~~ newly detected data flow as the content of the head pointer, and ~~meanwhile,~~ moving the head and tail pointers down a position in the circular link list.

3.   (Currently amended) The method as claimed in claim 1, characterized in that, when the circular link list is fully filled, ~~full, step e)~~ step d) further comprises the ~~step~~ steps of:
        ~~e2)~~   examining ~~data flow~~ the newly detected data flow and the content of the head pointer element, when [[a]] the difference between ~~data flow~~ the newly detected data flow and the content of the head pointer exceeds the flow threshold, moving the head and tail pointers down a position in the circular link list, and saving the ~~data flow~~ newly detected data flow as the content of the head pointer, ~~and moving the head and tail pointers down a position~~.

4.   (Canceled).

5.   (Currently amended): The method of claim 1[[4]], characterized in that the method further comprises the step of setting the user in an unauthenticated state in step e) ~~f)~~.

6.   (Canceled).

7.   (Currently amended): The method of claim 1[[6]], characterized in that the time for the ~~charging~~ fee calculation server to stop recording the online time of the user ~~time charging~~ is immediately before an outer time interval corresponding to the inner time interval when the IDLE state is detected.

8.   (Currently amended) The method of claim 1[[5]], characterized in that the inner time interval is about 30 seconds and/or the outer time interval is about 5 minutes.

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9-12.   (Canceled).